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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/070,963	06/28/2002	Erwin Bischoff	Le A 33 965	4889

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JEFFREY M. GREENMAN
VICE PRESIDENT, PATENTS AND LICENSING
BAYER CORPORATION
400 MORGAN LANE
WEST HAVEN, CT 06516

EXAMINER	
KIM, JENNIFER M	
ART UNIT	**PAPER NUMBER**
1617	

DATE MAILED: 12/05/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/070,963	BISCHOFF ET AL.	
	Examin r	Art Unit	
	Jennifer Kim	1617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

P riod for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 November 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,5-10 and 12-26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,5-10 and 12-26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3/13/2002 10/18/2002
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Applicants' election of species without traverse of 2-[2-ethoxy-5-(4-ethyl-piperazine-1-sulfonyl)-phenyl]-5-methyl-7-propyl-3H-imidazo[5,1-f-]-[1,2,4]-triazin-4-one (Vardenafil) as the PDE inhibitor and HMG-CoA-reductase inhibitors as the antilipedmic species, as directed to claims 1, 5-10, and 12-26 is acknowledged. The claims have been examined only to the extent of applicants' election.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 18 and 19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With regard to claim 18, the term "functional unit" is indefinite since it is not clear what are the metes and bounds of the term "functional" since it is not defined in the specification.

With regard to claim 19, the parenthetical term "spatially" is indefinite since it is not clear the term is in fact the claim limitation.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1, 5, 7-10, and 12-18, 20-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liao et al. (U.S.Patent No. 6,147,109) in view of Niewohner et al. (WO 99/24433) of record.

Liao et al. teach that HMG-CoA reductase inhibitor such as simvastatin, pravastatin, fluvastatin, cerivastatin, atorvastatin are useful for the treatment impotence in a subject. (column 9, lines 10-65, claims 15-27, column 3, lines 32-39). Liao et al. also teach that the HMG-C0A reductase inhibitors can be co-administered with a second agent (impotence therapy adjunct) with a condition treatable by the second agent in an amount effective to treat the condition to enhance the result. (column 5, lines 35-40, column 13, lines 14-65, particularly line 63). Liao et al. teach that the reductase inhibitor is administered simultaneously with the second agent close enough in time whereby the two compounds may exert an additive or even synergistic effect. (column 14 , lines 18-28).

Liao et al. does not expressly teach Vardenafil in the above formulation.

Niewohner et al. teach that the Applicants' active agent, vardenafil (hydrochloride, or trihydrate), inhibits $_c$GMP-metabolising phosphodiesterases and is suitable for use in medicaments of treating erectile dysfunction. (abstract, examples 19, 20, 337, 336).

It would have been obvious to one of ordinary skill in the art to combine vardenafil in Liao et al.'s composition because Niewohner et al. teach that Vardenafil is useful for the treatment of erectile dysfunction and because Liao et al. teach the HMG-CoA reductase inhibitors can be coadministered with other agents (i.e. impotence

therapy adjunct). One would have been motivated to combine vardenafil well known for the treatment of sexual dysfunction by Niewohner et al. in Liao et al.'s composition simultaneously with another agent (i.e. impotence therapy adjunct) to achieve expected additive benefit in treatment of impotence or even synergistic effect as taught by Liao et al. Absent any evidence to contrary there would have been a reasonable expectation of successfully treating sexual dysfunction because they are drawn to same technical fields (constituted with same effect or utility), which are pertinent to the treatment of sexual dysfunction.

Claims 6 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liao et al. (U.S.Patent No. 6,147,109) in view of Niewohner et al. (WO 99/24433) of record as applied to claims 1, 5, 7-10, and 12-18, 20-26 above, and further in view of Doherty, Jr. et al. (U.S.Patent No. 6,037,346).

Teachings of Liao et al. and Niewohner et al. as applied as before.

Liao et al. and Niewohner et al. do not expressely teach the kit set forth in claims 6 and 19.

Doherty, Jr. et al. teach the kit for the erectile dysfunction comprising PDE inhibitors and different active agents. (abstract, column 3, lines 20-37,column 14, lines 26-40).

It would have been obvious to formulate the Liao et al.'s composition as modified by Niewohner et al. in a kit because Doherty, Jr. et al. teach that erectile dysfunction treatment of a kit is old and well-known. One would have been motivated to make such

a modification for the conveniently treating erectile dysfunction by having the therapeutic agents accessible in one package.

Claims 1, 5, 7-10, and 12-18, 20-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liao et al. (U.S.Patent No. 6,147,109) in view of R&D Drug News (1998).

Liao et al.'s teachings as applied as before.

Liao et al. disclose that salts, esters, amides, prodrugs and other derivatives of the active agents may be prepared using standard procedures known to those skilled in the art of synthetic organic chemistry. (column 8, lines 38-40).

Liao does not expressly teach the vardenafil and its specified salt (i.e. trihydrate).

R&D Drug News teaches vardenafil is the phosphodiesterase inhibitor is in preclinical trials as a potential therapy for erectile dysfunction.

It would have been obvious to one of ordinary skill in the art to combine vardenafil in Liao et al.'s composition because R&D Drug News teaches that Vardenafil is in preclinical trial as a potential therapy for erectile dysfunction and because Liao et al. teach the HMG-CoA reductase inhibitors can be coadministered with other agents (i.e. impotence therapy adjunct). One would have been motivated to combine vardenafil well known for having potential therapy for erectile dysfunction in Liao et al.'s composition simultaneously with HMGCoA reductase inhibitors to achieve expected additive benefit in treatment of impotence or even synergistic effect as taught by Liao et

al. Absent any evidence to contrary there would have been a reasonable expectation of successfully treating sexual dysfunction because they are drawn to same technical fields (constituted with same effect or utility) which are pertinent to the treatment of sexual dysfunction. The pharmaceutical salts, e.g., trihydrate, etc; is deemed obvious since they are all within the knowledge of the skilled pharmacologist and that salts, esters, amides, prodrugs and other derivatives of the active agents may be prepared using standard procedures known to those skilled in the art of synthetic organic chemistry as disclosed by Liao et al.

Claims 6 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liao et al. (U.S.Patent No. 6,147,109) in view of R&D Drug News (1998) as applied to claims 1, 5, 7-10, and 12-18, 20-26 above, and further in view of Doherty, Jr. et al. (U.S.Patent No. 6,037,346).

Teachings of Liao et al. and R&D Drug News (1998) applied as before.

Liao et al. and R&D Drug News do not expressly teach the kit set forth in claims 6 and 19.

Doherty, Jr. et al. teach the kit for the erectile dysfunction comprising PDE inhibitors and different active agents. (abstract, column 3, lines 20-37,column 14, lines 26-40).

It would have been obvious to formulate the Liao et al.'s composition as modified by R&D Drug News in a kit because Doherty, Jr. et al. teach that erectile dysfunction treatment of a kit is old and well-known. One would have been motivated to make such

a modification for the conveniently treating erectile dysfunction by having the therapeutic agents accessible in one package.

For these reasons the claimed subject matter is deemed to fail to patentably distinguish over the state of the art as represented by the cited references. The claims are therefore properly rejected under 35 U.S.C. 103.

None of the claims are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer Kim whose telephone number is 703-308-2232. The examiner can normally be reached on Monday through Friday 6:30 am to 3 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sreenivasan Padmanabhan can be reached on 703-305-1877. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1235.

SREENI PADMANABHAN
SUPERVISORY PATENT EXAMINER
Sreenivasan Padmanabhan

12/1/05

Supervisory Examiner
Art Unit 1617

Jmk
November 28, 2003